



Figure 1A

LF native DNA sequence

1 atgaatataa aaaaagaatt tataaaagta attagtatgt catgtttagt aacagcaatt
61 acttttgagt gtcccgctct tatccccctt gtacaggggg cgggcggtca tggatgatga
121 ggtatgcacg taaaagagaa agagaaaaat aaagatgaga ataagagaaa agatgaagaa
181 cgaaataaaa cacaggaaga gcattttaaag gaaatcatga aacacattgt aaaaatagaa
241 gtaaaagggg aggaagctgt taaaaaagag gcagcagaaa agctacttga gaaagtacca
301 tctgatgttt tagagatgta taaagcaatt ggaggaaaaga tatatatgtt ggatgggtgat
361 attacaaac atatatcttt agaagcatta tctgaagata agaaaaaaat aaaagacatt
421 tatgggaaag atgctttatt acatgaacat tatgtatatg caaaaagaagg atatgaaccc
481 gtacttgtaa tccaatcttc ggaagattat gtagaaaata ctgaaaaggc actgaacgtt
541 tattatgaaa taggtaagat attatcaagg gatattttta gtaaaattaa tcaaccatat
601 cagaaatttt tagatgtatt aaataccatt aaaaatgcat ctgattcaga tggacaagat
661 cttttattta ctaatcagct taaggaacat cccacagact tttctgtaga attcttggaa
721 caaaatagca atgaggtaca agaagtattt gcgaaagctt ttgcatatta tatcgagcca
781 cagcatcgtg atgttttaca gctttatgca ccggaagctt ttaattacat ggataaattt
841 aacgaacaag aaataaatct atccttggaa gaacttaaag atcaacggat gctgtcaaga
901 tatgaaaaat gggaaaagat aaaacagcac tatcaacact ggagcgattc tttatctgaa
961 gaaggaagag gactttttaa aaagctgcag attcctattg agccaaagaa agatgacata
1021 attcattctt tatctcaaga agaaaaagag cttctaaaaa gaatacaaat tgatagtagt
1081 gattttttat ctactgagga aaaagagttt ttaaaaaagc tacaattga tattcgtgat
1141 tctttatctg aagaagaaaa agagctttta aatagaatac aggtggatag tagtaatcct
1201 ttatctgaaa aagaaaaaga gttttttaa aagctgaaac ttgatattca accatatgat
1261 attaatcaaa ggttgcaaga tacaggaggg ttaattgata gtccgtcaat taactttgat
1321 gtaagaaagc agtataaaag ggatattcaa aatattgatg ctttattaca tcaatccatt
1381 ggaagtacct tgtacaataa aatttatttg tatgaaaata tgaatatcaa taaccttaca
1441 gcaaccctag gtgcggattt agttgattcc actgataata ctaaaattaa tagaggattt
1501 ttcaatgaat tcaaaaaaaa tttcaaatat agtatttcta gtaactatat gattgttgat
1561 ataaatgaaa ggctgcatt agataatgag cgtttgaaat ggagaatcca attatcacca
1621 gatactcgag caggatattt agaaaatgga aagcttata tacaagaaa catcggctctg
1681 gaaataaagg atgtacaaat aattaagcaa tccgaaaaag aatatataag gattgatgag
1741 aaagtagtgc caaagagtaa aatagataca aaattcaag aagcacagtt aaatataaat
1801 caggaatgga ataaagcatt agggttacca aaatatacaa agcttattac attcaacgtg
1861 cataatagat atgcatccaa tattgtagaa agtgcttatt taatattgaa tgaatggaaa
1921 aataatatcc aaagtgatct tataaaaaag gtaacaaatt acttagttga tggtaatgga
1981 agatttggtt ttaccgatat tactctccct aatatagctg aacaatatac acatcaagat
2041 gagatatatg agcaagttca ttcaaaaggg ttatatgttc cagaatcccg ttctatatta
2101 ctccatggac cttcaaaagg tgtagaatta aggaatgata gtgagggttt tatacacgaa
2161 tttggacatg ctgtggatga ttatgctgga tatctattag ataagaacca atctgattta
2221 gttacaaatt ctaaaaaatt cattgatatt ttaaggaag aaggagtaa ttttaacttcg
2281 tatgggagaa caaatgaagc ggaatttttt gcagaagcct ttaggttaat gcattctacg
2341 gaccatgctg aacgttttaa agttcaaaaa aatgctccga aaactttcca atttattaac
2401 gatcagatta agttcattat taactcataa

Coding sequence: 1-2430

Signal peptide: 1-99

Mature peptide: 100-2430

LF4 peptide: 124-855



Figure 1B

Amino acid sequence for LF mature peptide (missing the signal sequence)

1 agghgdvgmh vkekeknkde nkrkdeernk tqeehlkeim khivkievkg eeavkkeaae
61 kllekvpsdv lemykaiggk iyivdgditk hislealsed kkkikdiygk dallhehyvy
121 akegyepvlv iqssedyven tekalnvyve igkilsrdil skinqpyqkf ldvltikna
181 sdsdgqdllf tnqlkehptd fsvefleqns nevqevfaka fayyiepqhr dvlqlyapea
241 fnymdkfneq einlsleelk dqrmisryek wekikqhyqh wsdslseegr gllklqipi
301 epkkddihs lsqeekellk riqidssdf1 steekeflkk lqidirdsls eeekellnri
361 qvdssnplse kekeflkkkldiqpyding rlqdtggld spsinldvrk qykrdiqnd
421 allhqsigst lynkiylyen mninnltatl gadlvdstdn tkinrgifne fkknfkysis
481 snymivdine rpaldnerlk wriqlspdtr agylengkli lqrnigleik dvqiikqsek
541 eyiridakvv pkskidtkiq eaqlningew nkalglpkyt klitfnvhnv yasnivesay
601 lilnewknni qsdlikkvtv ylvdgnggrfv ftditlpnia eqythqdeiy eqvhskglyv
661 pesrsillhg pskgvelrnd segfihefgh avddyagyll dknqsdlvtv skkfidi fke
721 egsnltsygr tneaeffaea frlmhstdha erlkvqknep ktfqfindqi kfiins

Amino acid sequence for LF4 (amino acids 9-252 from above sequence)

9 mh vkekeknkde nkrkdeernk tqeehlkeim khivkievkg eeavkkeaae
61 kllekvpsdv lemykaiggk iyivdgditk hislealsed kkkikdiygk dallhehyvy
121 akegyepvlv iqssedyven tekalnvyve igkilsrdil skinqpyqkf ldvltikna
181 sdsdgqdllf tnqlkehptd fsvefleqns nevqevfaka fayyiepqhr dvlqlyapea
241 fnymdkfneq ei

Title: METHODS FOR PROTECTION AGAINST LETHAL INFECTION WITH *BACILLUS ANTHRACIS*

Inventors Name: Galloway, et al.; Serial No.: 09/747,521

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Figure 2A

PA native DNA sequence

ORIGIN

1	atgaaaaaac	gaaaagtgtt	aataccatta	atggcattgt	ctacgatatt	agtttcaagc
61	acaggtaatt	tagaggatgat	tcaggcagaa	gttaaacagg	agaaccgggt	attaaatgaa
121	tcagaatcaa	gttcccagg	gttactagga	tactatttta	gtgatttgaa	ttttcaagca
181	cccatgggtg	ttacctcttc	tactacagg	gatttatcta	ttcctagttc	tgagttagaa
241	aattattccat	cggaaaacca	atattttcaa	tctgctattt	ggtcaggatt	tatcaaagtt
301	aagaagagt	atgaatatac	atttgctact	tccgctgata	atcatgtaac	aatgtgggta
361	gatgaccaag	aagtgattaa	taaagcttct	aattctaaca	aaatcagatt	agaaaaagga
421	agattatata	aaataaaaaat	tcaatatcaa	cgagaaaatc	ctactgaaaa	aggattggat
481	ttcaagttgt	actggaccga	ttctcaaaat	aaaaaagaag	tgattttctag	tgataactta
541	caattgccag	aattaaaaca	aaaatcttcg	aactcaagaa	aaaagcgaag	tacaagtgtc
601	ggacctacgg	ttccagaccg	tgacaatgat	ggaatccctg	attcattaga	ggtagaagga
661	tatacgggtg	atgtcaaaaa	taaaagaact	tttctttcac	catggatttc	taatattcat
721	gaaaagaaag	gattaaccaa	atataaatca	tctcctgaaa	aatggagcac	ggcttctgat
781	ccgtacagtg	atttcgaaaa	ggttacagga	cggattgata	agaatgtatc	accagaggca
841	agacaccccc	ttgtggcagc	ttatccgatt	gtacatgtag	atatggagaa	tattattctc
901	tcaaaaaatg	aggatcaatc	cacacagaat	actgatagtc	aaacgagaac	aataagtaaa
961	aatacttcta	caagtaggac	acatactagt	gaagtacatg	gaaatgcaga	agtgcagtcg
1021	tcgttctttg	atattggtgg	gagtgtatct	gcaggattta	gtaattcgaa	ttcaagtacg
1081	gtcgcaattg	atcattcact	atctctagca	ggggaaagaa	cttgggctga	aacaattgggt
1141	ttaaataccg	ctgatacagc	aagattaaat	gccaatatta	gatatgtaaa	tactgggacg
1201	gctccaattg	acaacgtgtt	accaacgact	tcgttagtgt	taggaaaaaa	tcaaacactc
1261	gcgacaatta	aagctaagga	aaaccaatta	agtc aaat ac	ttgcacctaa	taattattat
1321	cettctaaaa	acttggcgcc	aatcgcat	aatgcacaag	acgatttcag	ttctactcca
1381	attacaatga	attacaatca	atttcttgag	ttagaaaaaa	cgaaacaatt	aagattagat
1441	acggatcaag	tatatgggaa	tatagcaaca	tacaattttg	aaaatggaag	agtgagggtg
1501	gatacaggct	cgaactggag	tgaagtgtta	ccgcaaattc	aagaaacaac	tgacagtatc
1561	atttttaatg	gaaaagattt	aaatctggta	gaaaggcgga	tagcggcggt	taatcctagt
1621	gatccattag	aaacgactaa	accggatatg	acattaaaag	aagcccttaa	aatagcattt
1681	ggatttaacg	aaccgaatgg	aaacttacaa	tatcaaggga	aagacataac	cgaatttgat
1741	tttaatttcg	atcaacaaac	atctcaaaat	atcaagaatc	agttagcgga	attaaacgca
1801	accaacatat	atactgtatt	agataaaatc	aaattaaatg	caaaaatgaa	tattttaata
1861	agagataaac	gttttcatta	tgatagaaat	aacatagcag	ttggggcgga	tgagtcagta
1921	gttaaggagg	ctcatagaga	agtaattaat	tcgtcaacag	agggattatt	gttaaataat
1981	gataaggata	taagaaaaat	attatcaggt	tatattgtag	aaattgaaga	tactgaaggg
2041	cttaaaagaag	ttataaatga	cagatatgat	atgttgaata	tttctagttt	acggcaagat
2101	ggaaaaacat	ttatagattt	taaaaaatat	aatgataaat	taccgttata	tataagtaat
2161	cccaattata	aggtaaattg	atatgctgtt	actaaagaaa	acactattat	taatcctagt
2221	gagaatgggg	atactagtac	caacgggatc	aagaaaattt	taatcttttc	taaaaaaggg
2281	tatgagatag	gataa				

Coding sequence: 1-2295

Signal peptide: 1-87

Mature peptide: 88-2295

pCPA: 610-2295



Figure 2B

Amino acid sequence for PA mature peptide (missing the signal sequence)

1	evkqenrlln	esesssqgll	gyyfsdlmfq	apmvvtsstt	gdlsipssel	enipsenqyf
61	qsaiwsgfik	vkksdeytfa	tsadnhvtmw	vddqevinka	snsnkirlek	grlyqikiqy
121	qrenptekgl	dfklywtdsq	nkkevisssn	lqlpelkqks	snsrkkrrsts	agptvpdrdn
181	dgipdsleve	gytvdvknkr	tflspwisni	hekkgltskyk	sspekwtas	dpysdfekvt
241	gridknvspe	arhplvaayp	ivhvdmenii	lsknedqstq	ntdsqtrtis	kntstsrtht
301	sevhgnaevh	asffdiggs	v	sagfsnsnss	tvaidslsl	agertwaetm
361	naniryvntg	tapiynvlp	tslvlgknqt	latikakenq	lsqilapnny	ypsknlapia
421	lnaqddfsst	pitmynqfl	elektkqlrl	dtdqvygnia	tynfengrvr	vdsgsnwsev
481	lpqiqettar	iifngkdlnl	verriaavnp	sdplettkpd	mtlkealkia	fgfnepngnl
541	qyqgkditef	dfnfdqqtst	niknqlaeln	atniyvtldk	iklnakmnll	irdkrfhydr
601	nniavgades	vvkeahrevi	nsstegllln	idkdirkils	gyiveiedte	glkevindry
661	dmlnisslrq	dgktfidfkk	yndklplyis	npnykvnvya	vtkentiinp	sengdtstng
721	ikkilifskk	gyeig				

Amino acid sequence for pCPA (amino acids 175-735 from above sequence)

175						vpdrdn
181	dgipdsleve	gytvdvknkr	tflspwisni	hekkgltskyk	sspekwtas	dpysdfekvt
241	gridknvspe	arhplvaayp	ivhvdmenii	lsknedqstq	ntdsqtrtis	kntstsrtht
301	sevhgnaevh	asffdiggs	v	sagfsnsnss	tvaidslsl	agertwaetm
361	naniryvntg	tapiynvlp	tslvlgknqt	latikakenq	lsqilapnny	ypsknlapia
421	lnaqddfsst	pitmynqfl	elektkqlrl	dtdqvygnia	tynfengrvr	vdsgsnwsev
481	lpqiqettar	iifngkdlnl	verriaavnp	sdplettkpd	mtlkealkia	fgfnepngnl
541	qyqgkditef	dfnfdqqtst	niknqlaeln	atniyvtldk	iklnakmnll	irdkrfhydr
601	nniavgades	vvkeahrevi	nsstegllln	idkdirkils	gyiveiedte	glkevindry
661	dmlnisslrq	dgktfidfkk	yndklplyis	npnykvnvya	vtkentiinp	sengdtstng
721	ikkilifskk	gyeig				

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